

## IN THE CLAIMS:

1           1. (original) An apparatus for generating a computer numerically controlled  
2           program, the apparatus comprising:  
3                     a specifier module having a first input that receives data defining a  
4           characteristic of a piece of equipment, a second input that receives data defining a desired  
5           characteristic of a seal for use in the piece of equipment, and an output that provides a  
6           profile of a seal that is compatible with the piece of equipment; and  
7                     a computer numerically controlled program generator, having an input that  
8           receives the profile of the seal and an output that provides a computer numerically  
9           controlled program for machining an element of the seal based upon the profile of the  
10          seal, so that the seal is compatible with the piece of equipment.

1           2. (original) The apparatus of claim 1, further comprising a seal design module  
2           that receives the profile of the seal and an output that provides dimensions based upon the  
3           profile of the seal, the dimensions defining the seal such that the seal is compatible with  
4           the piece of equipment.

1           3. (original) The apparatus of claim 2, wherein the seal design module further  
2           provides at least one custom manufacturing print for the seal that is compatible with the  
3           piece of equipment.

1           4. (original) The apparatus of claim 1, further comprising a proposal generator  
2           that provides a proposal for manufacturing the seal so that the seal meets the desired  
3           characteristic and fits the piece of equipment.

1           5. (original) The apparatus of claim 4, wherein the proposal includes at least one  
2           of price information, modification notes, warnings, a bill of materials, an order form, a  
3           dimension verification form, and a plant standardization survey.

1           6. (original) The apparatus of claim 1, wherein the piece of equipment includes a  
2           pump.

1           7. (original) The apparatus of claim 6, wherein the data defining the characteristic  
2           of the piece of equipment includes an identification of a process fluid for the pump.

1           8. (original) The apparatus of claim 1, wherein the data defining the characteristic  
2           of the piece of equipment includes dimensions that describe the piece of equipment.

1           9. (original) The apparatus of claim 1, wherein the data defining the characteristic  
2           of the piece of equipment includes a description of an environmental operating condition  
3           of the piece of equipment.

1           10. (original) A computer operated method for generating a computer numerically  
2 controlled program, the method comprising the steps of:  
3           receiving a first input defining a characteristic of a piece of equipment;  
4           receiving a second input defining a desired characteristic of a seal for use  
5 in the piece of equipment; and  
6           automatically generating a computer numerically controlled program for  
7 machining an element of the seal based upon the first input and the second input, so that  
8 the seal is compatible with the piece of equipment.

1           11. (original) The method of claim 10, further comprising a step of generating  
2 dimensions based upon the first input and the second input, the dimensions defining a  
3 seal that is compatible with the piece of equipment.

1           12. (original) The method of claim 11, further comprising a step of generating at  
2 least one custom manufacturing print for the seal that is compatible with the piece of  
3 equipment.

1           13. (original) The method of claim 10, further comprising a step of generating a  
2 proposal for manufacturing the seal that meets the desired characteristic and fits the piece  
3 of equipment.

1           14. (original) The method of claim 13, wherein the proposal includes at least one  
2 of price information, modification notes, warnings, a bill of materials, an order form, a  
3 dimension verification form, and a plant standardization survey.

1           15. (original) The method of claim 10, wherein the piece of equipment includes a  
2 pump.

1           16. (original) The method of claim 15, wherein the characteristic of the piece of  
2 equipment includes an identification of a process fluid for the pump.

1           17. (original) The method of claim 10, wherein the characteristic of the piece of  
2 equipment includes dimensions that describe the piece of equipment.

1           18. (original) The method of claim 10, wherein the characteristic of the piece of  
2 equipment includes a description of an environmental operating condition of the piece of  
3 equipment.

1           19. (original) An apparatus for generating a computer numerically controlled  
2 program, the apparatus comprising:

3                   means for receiving a first input defining a characteristic of a piece of  
4 equipment;

5 means for receiving a second input defining a desired characteristic of a  
6 seal for use in the piece of equipment; and  
7 means for generating a computer numerically controlled program for  
8 machining an element of the seal based upon the first input and the second input, so that  
9 the seal is compatible with the piece of equipment.

1 20. (original) The apparatus of claim 19, further comprising means for generating  
2 dimensions based upon the first input and the second input, the dimensions defining a  
3 seal that is compatible with the piece of equipment.

1 21. (original) The apparatus of claim 20, further comprising means for generating  
2 at least one custom manufacturing print for the seal that is compatible with the piece of  
3 equipment.

1 22. (original) The apparatus of claim 19, further comprising means for generating  
2 a proposal for manufacturing the seal that meets the desired characteristic and fits the  
3 piece of equipment.

1 23. (original) The apparatus of claim 22, wherein the proposal includes at least  
2 one of price information, modification notes, warnings, a bill of materials, an order form,  
3 a dimension verification form, and a plant standardization survey.

1           24. (original) The apparatus of claim 19, wherein the piece of equipment includes  
2           a pump.

1           25. (original) The apparatus of claim 24, wherein the characteristic of the piece of  
2           equipment includes an identification of a process fluid for the pump.

1           26. (original) The apparatus of claim 19, wherein the characteristic of the piece of  
2           equipment includes dimensions that describe the piece of equipment.

1           27. (original) The apparatus of claim 19, wherein the characteristic of the piece of  
2           equipment includes a description of an environmental operating condition of the piece of  
3           equipment.

1           28. (original) An apparatus for generating a computer numerically controlled  
2           program, comprising:

3                     a database of templates of computer numerically controlled programs,  
4           specifying operations for a program for machining an element, without dimensional  
5           information; and

6                     a computer numerically controlled program generator, having an input that  
7           receives the profile of the seal and templates from the database of templates for the seal,

8 and an output that provides a computer numerically controlled program for machining an  
9 element of the seal based upon the profile of the seal, so that the seal is compatible with  
10 the piece of equipment.

1 29. (original) A method for making a mechanical seal, comprising the steps of:  
2 preparing templates of computer numerically controlled programs,  
3 specifying operations for a program for machining an element, without dimensional  
4 information; and  
5 receiving a profile of a seal and the templates for the seal; and  
6 generating a computer numerically controlled program for machining an  
7 element of the seal based upon the profile of the seal, so that the seal is compatible with  
8 the piece of equipment.

1 30. (canceled)